

REMARKS

- 1) Applicants have amended independent claims 1 and 2 as shown above, to now require that the second dopant element is indium. This effectively limits the scope of the claim 1 to an alloy consisting essentially of silver; gold as a first dopant element; and indium as a second dopant element, wherein a total of the concentration of the first dopant element and the concentration of the second dopant element are 0.01 to 2.0 atomic %. The scope of claim 2 is now limited to an alloy consisting essentially of silver; palladium as a first dopant element; and indium as a second dopant element, wherein a total of the concentration of the first dopant element and the concentration of the second dopant element are 0.01 to 2.0 atomic %. Support for these amendments can be found in the originally filed specification. Specifically, Tables 1-3 show particular embodiments of alloys consisting essentially of Ag-Au-In according to claim 1, as well as alloys consisting essentially of Ag-Pd-In of according to claim 2. It is submitted that no new matter is added by the above amendments to the claims, and that all grounds of rejection have been overcome by the instant amendment.
- 2) The examiner has rejected claims 1, 2, 10, and 11 under 35 U.S.C. 102 over JP-2003-293054 (hereinafter JP ‘054) or JP-2003-089830 (hereinafter JP ‘830). Applicants respectfully assert that this ground of rejection has been overcome.

Claim 1 has been amended to provide a silver alloy for use in a reflective film, consisting essentially of: silver; gold as a first dopant element; and *indium* as a second dopant element. Claim 2 has been amended to provide a silver alloy for use in a reflective film, consisting essentially of: silver; palladium as a first dopant element; and *indium* as a second dopant element. The first and second dopant materials are present in a particular concentration ratio with respect to each other, as stated by the claims. It is submitted that the presently claimed alloy combinations are not taught by either of JP ‘054 or JP ‘830.

JP '054 relates to silver alloy films which require silver (Ag) and samarium (Sm), and additionally gold (Au) and/or copper (Cu). However, nowhere does the reference disclose the claimed combinations of silver, gold, and indium, or silver, palladium, and indium, as required by claims 1 and 2, respectively. In fact, JP'054 does not disclose the use of indium at all. In addition, while the reference requires the presence of samarium in their claimed alloys, samarium is essentially *excluded* from the presently claimed alloys due to the wording of the claims. That is, the transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that *do not* materially affect the basic and novel characteristic(s)" of the claimed invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original). Thus, the present claim 1 defines the inventive silver alloys as those which consist essentially of silver, gold, and indium, while *excluding* all others which would materially affect the basic and novel characteristics of the claimed alloys. The same applies for claim 2, wherein the silver alloys consist essentially of silver, palladium, and indium while *excluding* all others which would materially affect the basic and novel characteristics of the alloys. It cannot be said that adding samarium and optionally copper into the specifically formulated alloys of claims 1 and 2 would *not* have a material affect on the characteristics of the claimed compositions. Thus, it is submitted that the alloys of the present claims are patentably distinct from the JP '054 reference.

Regarding JP '830, this reference relates to silver alloy films which require silver (Ag) in addition to one or more elements selected from the group consisting of: cerium (Ce), neodymium (Nd), and gadolinium (Gd). In addition, the reference requires one or more elements selected from the group consisting of: copper (Cu), gold (Au), palladium (Pd), and Platinum (Pt). Nowhere does JP '830 disclose the claimed alloy combinations of silver-gold-indium, or silver-palladium-indium, as required by claims 1 and 2 respectively. JP '830 also fails to disclose the use of indium at all, which is now a required feature of the present claims. In addition, for the reasons stated above, the use of the phrase "consisting essentially of" in the present claims essentially *excludes* each of JP '830's first group of required materials from the present alloys, namely cerium, neodymium, and gadolinium. Copper and platinum which are listed in the reference's

second group of materials are also excluded. It cannot be said that adding any one of cerium, neodymium, gadolinium, and optionally copper or platinum into the specifically formulated alloys of claims 1 and 2 would *not* have a material affect on the characteristics of the claimed compositions. Thus, it is submitted that the alloys of the present claims are patentably distinct from the JP '830 reference as well.

Again, neither of the cited references disclose the particular alloys required by the presently amended claims 1 or 2. It is submitted that the absence of these features renders the present invention patentably distinct from both JP-2003-293054 and JP-2003-089830. Thus, it is respectfully urged that the 35 U.S.C. 102 rejection has been overcome by the instant amendment.

3) The examiner has rejected claims 1, 2, 10, and 11 under 35 U.S.C. 103 over JP-2002-319185 (hereinafter JP '185) or JP-2003-113433 (hereinafter JP '433). Applicants respectfully submit that this ground of rejection has been overcome by the instant amendment.

JP '185 discloses silver alloy films which require silver (Ag) in addition to one or more elements selected from the group consisting of: chromium (Cr), zirconium (Zr), lanthanum (La), cerium (Ce), europium (Eu), calcium (Ca), strontium (Sr), barium (Ba), ruthenium (Ru), nickel (Ni), and tungsten (W). In addition, the reference requires one or more elements may be added which are selected from the group consisting of: zinc (Zn), magnesium (Mg), gold (Au), and palladium (Pd). Like the other cited references above, JP '185 also fails to disclose the claimed alloy combinations of silver-gold-indium, or silver-palladium-indium, as required by claims 1 and 2 respectively. JP '185 fails to disclose the use of indium at all, which is now a required feature of the present claims. Again, as argued above, the use of the phrase "consisting essentially of" in the present claims essentially *excludes* the presence of certain materials in the inventive alloys, other than those required by the present claims. Thus, each of JP '185's first group of required materials, namely chromium, zirconium, lanthanum, cerium, europium, calcium, strontium, barium, ruthenium, nickel, and tungsten are excluded from the presently

claimed alloys. Zinc and magnesium, which are listed in the reference's second group of materials, are also excluded. It cannot be said that adding any one of these excluded materials into the specifically formulated alloys of claims 1 and 2 would *not* have a material affect on the characteristics of the claimed compositions. Thus, it is submitted that the alloys of the present claims are patentably distinct from JP '185.

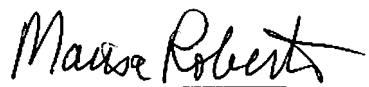
JP '433 discloses silver alloy films which require silver (Ag) in addition to one or more elements selected from the group consisting of: scandium (Sc), yttrium (Y), samarium (Sm), europium (Eu), terbium (Tb), dysprosium (Dy), erbium (Er), or ytterbium (Yb). In addition, the reference requires one or more elements selected from the group consisting of: copper (Cu) and gold (Au). JP '433 fails to disclose the claimed alloy combinations of silver-gold-indium, or silver-palladium-indium, as required by claims 1 and 2 respectively. In addition, JP '433 fails to disclose the use of indium, which required by presently amended claims. Also, due to the use of the phrase "consisting essentially of" in the present claims, each of JP '433's first group of required materials are *excluded* from the inventive alloys. These are namely scandium, yttrium, samarium, europium, terbium, dysprosium, erbium, and ytterbium. Copper, which is listed in the reference's second group of materials, is also excluded. It cannot be said that adding any one of these excluded materials into the specifically formulated alloys of claims 1 and 2 would *not* have a material affect on the characteristics of the claimed compositions. Thus, it is submitted that the alloys of the present claims are patentably distinct from the JP '433 reference as well.

It is submitted that one skilled in the art would not be inspired to formulate the present invention upon a reading of either of JP-2002-319185 or JP-2003-113433, since *neither* reference teaches or suggests the use of indium, and since both references require the use of materials which are excluded from the presently claimed alloys, by the "consisting essentially of" language of claims 1 and 2. It is therefore respectfully submitted that the

35 U.S.C. 103 rejection has been overcome by the instant amendment.

The undersigned respectfully requests re-examination of this application and believes it is now in condition for allowance. Such action is requested. If the Examiner believes there is any matter which prevents allowance of the present application, it is requested that the undersigned be contacted to arrange for an interview which may expedite prosecution.

Respectfully submitted,



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